



## How Well Does Bankruptcy Work When Large Financial Firms Fail? Some Lessons from Lehman Brothers

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There is disagreement about whether large and complex financial institutions should be allowed to use U.S. bankruptcy law to reorganize when they get into financial difficulty. We look at the Lehman example for lessons about whether bankruptcy law might be a better alternative to bailouts or to resolution under the Dodd-Frank Act's orderly liquidation authority. We find that there is no clear evidence that bankruptcy law is insufficient to handle the resolution of large complex financial firms.

One of the most important questions facing policymakers today is whether the bankruptcy process is, or with modifications could be, a suitable method for handling the failure of complex, nonbank financial firms. Although the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2009 established an orderly liquidation authority to unwind selected systemically important financial institutions, it left bankruptcy as the default for the rest.

Opinions are sharply divided on the adequacy of U.S. bankruptcy law to resolve complex nonbank financial firms in an orderly fashion. Somewhat ironically, both camps point to the market disruptions that followed the Lehman Brothers bankruptcy filing in 2008 as supporting evidence for their views.

The financial crisis of 2007–2009 was a complex event, so it is not surprising that there are different views about what caused the market turmoil following Lehman's bankruptcy filing. Those views involve differing opinions about whether the bankruptcy resolution of Lehman Brothers was orderly. For example, implicit in the FDIC's analysis of the event is the view that the disorderly resolution of Lehman in bankruptcy was a causal factor in the near collapse of financial markets in the fall of 2008. Holders of this view often argue

that U.S. bankruptcy law cannot effectively unwind complex nonbank financial institutions, even if the law is amended.

Another view, expressed by many bankruptcy scholars, is that Lehman's reorganization went fairly smoothly and spill-over effects were limited. Proponents of this view attribute the market turmoil after Lehman's bankruptcy filing to policy uncertainty: The U.S. government decided to let Lehman fail when the market expected a government-assisted rescue. Still, they acknowledge that the law should be improved to better handle complex financial institutions.

We won't be able to sort this debate out here, but we will point to some lessons that can be drawn from the events surrounding the Lehman bankruptcy filing. These lessons concern whether the insolvency of large or complex financial companies can be adequately handled through the judicial process of bankruptcy. We also consider what changes, if any, need to be made to the bankruptcy code to make bankruptcy a desirable alternative to ad hoc bailouts or to resolution under the Dodd-Frank Act's orderly liquidation authority. In the end, the Lehman case is just one event, and though many people have tried to extract deep meaning from it, the conclusions we can draw from it, though useful, are limited.

## U.S. Bankruptcy Law and Complex Financial Institutions

The debate over the ability of U.S. bankruptcy law to resolve complex financial firms largely centers on four questions. Does the bankruptcy of a systemically important firm increase the chances of market turmoil? Will the bankruptcy of such firms cause contagion? Does the law's treatment of qualified financial contracts lead to disorder in bankruptcy resolutions? And finally, do limitations in the scope of bankruptcy law complicate the resolution of complex financial firms? The Lehman bankruptcy grants some insight into each of these questions.

### Bankruptcy and Market Turmoil

Lehman Brothers filed for bankruptcy on September 15, 2008. Markets clearly showed signs of increasing stress thereafter and during the fall of 2008. Yields in short-term markets spiked the week following the Lehman filing. Risk spreads in short-term credit markets widened—indicating a “flight to quality” by market participants. For example, the term *Libor-OIS* spread increased around 350 basis points in the period following the Lehman bankruptcy (figure 1). A similar picture emerges from the credit default swaps (CDS) market (figure 2).

Some analysts maintain that it was Lehman's use of the bankruptcy courts that caused the market turmoil. They often point to graphs like figures 1 and 2 as evidence of the insufficiency of bankruptcy law to resolve complex financial firms. Others claim that it was not the use of bankruptcy,

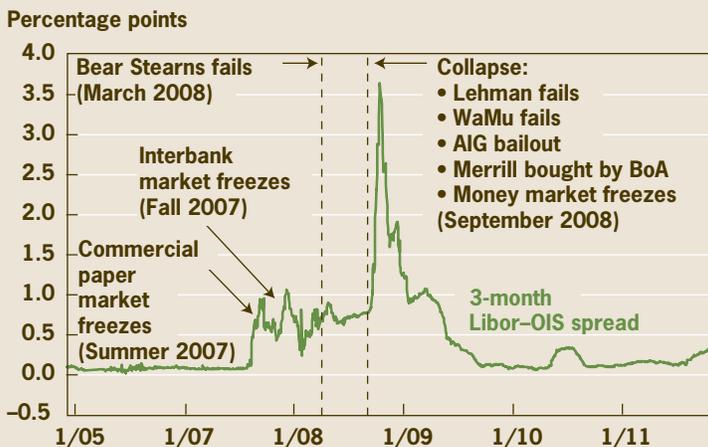
but rather policy responses inconsistent with market expectations that caused markets to panic. That is, Lehman was allowed to fail when financial markets, and even the Lehman management team, expected a government-assisted rescue. A closer look at events around that time suggests that neither view is entirely correct.

The Lehman bankruptcy occurred during a time when there were good reasons for market participants to question the solvency of a number of large financial firms. The bankruptcy was accompanied by nearly two dozen significant disruptive events in September 2008 alone, some unrelated to the Lehman filing and some related to its failure. The clustering of multiple events around the time of the bankruptcy makes it difficult to identify the causal effects of the bankruptcy on markets, let alone the use of U.S. bankruptcy law.

While Lehman's failure triggered many problems in markets, event clustering makes it impossible to empirically identify the use of bankruptcy courts as the root of those problems. Moreover, it is impossible to separate out the impact of Lehman's bankruptcy filing from the uncertainty created by its filing.

Studies have shown that such uncertainty can have significant effects on markets. For example, in 1982 Penn Square Bank was liquidated by the FDIC, which experimented with modified payouts to resolve large bank failures (see Furlong, 1984). These modified payouts created uncertainty in the minds of the large, explicitly uninsured creditors of Conti-

Figure 1. Financial Crisis Timeline



Note: *Libor* (London interbank offered rate) is the overnight interest rate at which banks borrow from each other in the London interbank market. The *OIS* (overnight index swap) rate is the rate on a derivative contract written on the effective federal funds rate. For a discussion of the *Libor-OIS* spread as an indicator of financial distress see Thornton (2009).  
Sources: Bloomberg; Federal Reserve Bank of St. Louis.

Figure 2. Credit Default Swaps



Note: As shown by the *CDX.NA Investment Grade Index* (which is an index of credit default swaps written against investment grade North American companies), the cost of buying credit protection rose sharply around the time of the Lehman bankruptcy filing. For an overview of credit default swaps and other credit derivatives, see Mengle (2007).  
Sources: Markit; Bloomberg.

mental Illinois as to whether they were exposed to losses in the event Continental was closed. This uncertainty drove the run on the deposits of Continental Illinois before its collapse in 1984 (see Sprague, 1986).

The source of market turmoil following Lehman's failure, then, cannot conclusively be attributed to the use of bankruptcy law to resolve the firm's insolvency or to the uncertainty created by policy actions inconsistent with market expectations.

### *Bankruptcy and Contagion*

When a large, complex financial firm fails, the method of resolution should not be conducive to contagion. That is, the resolution process should not endanger the solvency of other firms. This is especially true in systemic crises, when the financial system is already stressed. Bankruptcy critics often argue that bankruptcy law may trigger contagion because it is designed to pay creditors strictly according to the priority of their claims. There is no consideration of their financial condition or potential market instability. Thus, contagion may spread through the use of bankruptcy if the recovery of creditors in need of liquidity is insufficient, or indirectly through credit default swaps (CDS) written on the resolved firm's debt. But the Lehman bankruptcy does not support the view that bankruptcy leads to contagion.

The day after Lehman Brothers filed for bankruptcy, the Reserve Primary Money Fund announced that it had "broken the buck": Due to losses on its holdings of Lehman debt, the net asset value of the Fund's shares had fallen to \$0.97 a share. It was only the second time in history that a money market fund's share value had fallen below a dollar, and it reflected how large an impact Lehman's collapse was having.

Most analysts would concede that the Fund's "breaking the buck" was a direct consequence of the Fund's losses on its holdings of Lehman debt, that the losses led to contagion, and that the contagion effects impacted the money market mutual fund industry and the commercial paper market thereafter. It is harder to argue that the structure of U.S. bankruptcy law, and not the insolvency of Lehman itself, was responsible for the losses on Lehman debt and the subsequent contagion. It may also be the case that the contagion effects were more a consequence of the money market funds' overexposure to Lehman and to a specific feature of the money funds themselves—the pegging of the share price to \$1. The share-price peg creates incentives for retail customers to run on a fund when its ability to maintain the peg becomes uncertain. Customers believe it is in their best interest to run to ensure par redemption of their money-fund shares.

Lehman's bankruptcy also tested the CDS market, as there was a reported \$400 billion of credit protection written against Lehman's debt. At the time of its bankruptcy, Lehman was the largest failure to be handled in the CDS market. For the purpose of settling the CDS contracts, Lehman's debt was determined to be worth 9.75 cents on the dollar at an International Swaps and Derivatives Association auction, lower

than the pre-auction estimates of 12 to 15 cents. However, the settlement of credit protection written on Lehman did not have material effects on financial markets.

### *Bankruptcy and Qualified Financial Contracts*

Derivatives and repos are a special type of contract called qualified financial contracts (QFCs), which are exempt from the trust avoidance powers of the Bankruptcy Code and the automatic stay. The trust avoidance provisions and automatic stay are designed to coordinate creditor payouts and ensure that they occur according to the priority of the claims that were established when the original agreements were made and transacted, rather than in a race to grab firm assets on the eve of failure or after the firm fails. This special treatment of QFCs in bankruptcy may complicate the process of reorganizing financial companies in bankruptcy. Bankruptcy experts disagree about the effect that the QFC exemption will have on the ability of financial firms to reorganize in bankruptcy. Lehman's QFC book was the largest in history to be handled in bankruptcy.

While Lehman's reorganization has provided additional guidance on which financial contracts are exempted from the automatic stay and how QFCs will be handled in bankruptcy, there is still disagreement on how well bankruptcy handles QFCs. Generally, opinions fall into one of two schools of thought. First, there are those who argue that the QFC exemption was an obstacle to an orderly resolution in the Lehman case. In testimony before a House subcommittee in 2009, Harvey Miller, the lead bankruptcy attorney for Lehman, argued that the exemption of some 930,000 derivative counterparties from the automatic stay led to a massive destruction of value through counterparties canceling their contracts. Ayotte and Skeel (2009) and Roe (2010) argue that the safe harbor provisions of bankruptcy for QFCs create perverse incentives for counterparties. Those incentives contribute to the systemic implications of a firm's failure, including creating a stampede for the exits, which inhibit orderly resolution under bankruptcy.

Second, there are those who argue that Lehman's derivatives portfolio was handled effectively because of the exemption from the automatic stay. Kimberly Anne Summe, a managing director at Lehman, provided this interpretation of the impact of Lehman's counterparties canceling their contracts on the value of Lehman's estate. Summe noted that only around 3 percent of Lehman's derivative contracts remained in the bankruptcy estate 106 days after the filing, potentially preventing the spread of distress to Lehman's counterparties by allowing them to quickly close out and re-establish their hedges before market conditions changed too dramatically. However, the benefit of allowing quick re-hedging is unclear, as is the cost of losing going-concern value (the value of the company as an ongoing entity rather than a liquidated one) due to the stay exemption.

Bankruptcy supporters argue that QFCs should be subject to a limited automatic stay, and there appears to be a case

for their position. The FDIC enjoys a one-day stay on QFCs in bank receivership cases, and there is little evidence that this limited stay for FDIC receiverships has been a problem. Moreover, when a nonbank financial firm is resolved under the orderly liquidation authority established in the Dodd-Frank Act, QFCs are subject to a one-day stay. If this stay is priced into QFCs with depository or systemically important financial institutions and U.S. bankruptcy law were changed to parallel the Dodd-Frank provision, markets would not likely be disrupted, and the pricing of QFCs would be identical across counterparties. It would also have the added benefit of giving the bankruptcy estate up to three days to determine what to do with a derivatives book before counterparties could close out and net, provided that the insolvent firm filed on a Friday.

### *The Scope of U.S. Bankruptcy Law*

The final material stumbling block to an orderly resolution under bankruptcy of a complex financial firm such as Lehman is the exclusion of certain types of businesses from Chapter 11 (which provides for corporate reorganization). In the case of Lehman, the exclusion of its broker-dealer subsidiary (Lehman Brothers, Inc.) from filing for Chapter 11 complicated the resolution of Lehman Brothers Holdings International. Lehman Brothers, Inc., became the subject of a liquidation proceeding under the U.S. Securities Investor Protection Act four days after Lehman Brothers Holdings International filed for bankruptcy, during which time the brokerage was borrowing from the Federal Reserve Bank of New York under the Primary Dealer Credit Facility.

The absence of government support likely would have complicated the sale of Lehman's broker-dealer to Barclay's. Because it did not have access to the special financing provisions that firms filing under Chapter 11 are entitled to, the brokerage would have lost going-concern value but for its access to the Primary Dealer Credit Facility. While the sale was quickly approved, without government support the sale may not have been possible under bankruptcy law. Whether this merits a change in U.S. bankruptcy law would have to be addressed separately for each exemption, though some argue the prohibition of broker-dealers reorganizing in bankruptcy no longer makes sense (see Skeel, 2009).

### *Policy Implications*

Lehman Brothers Holdings International is not the first, nor likely the last, systemic financial company to run aground. The case of Lehman is interesting, however, because its failure occurred during the most severe financial crisis in the United States since the Great Depression. The economic and financial market climate in which Lehman failed greatly complicated any resolution method that did not involve taxpayer assistance in the form of capital infusions or blanket guarantees of creditors. Yet Lehman has become the poster child for the orderly liquidation authority provisions of Title II of the 2010 Dodd-Frank Act.

Drawing inferences from Lehman about the effectiveness of bankruptcy in dealing with failing financial firms is problematic. It is difficult to use a single data point—the Lehman bankruptcy—to separate out the impact of Lehman's failure, the use of bankruptcy to resolve it, and the policy uncertainty.

Still, Lehman's bankruptcy offers guidance on how to approach future failures of large, complex financial firms. It appears that there are provisions of bankruptcy law that merit review and possible revision. In the absence of those changes, it may be the case that systemically important pieces of an insolvent firm may be more effectively resolved in an administrative proceeding such as the orderly liquidation authority established under Dodd-Frank. But based on the experience with Lehman, there is no clear evidence that bankruptcy law is insufficient to handle the resolution of large, complex financial firms.

### *Recommended Readings*

"Study on the Resolution of Financial Companies under the Bankruptcy Code," Board of Governors of the Federal Reserve System, 2011.

"Bankruptcy or Bailouts?" by Kenneth Ayotte and David A. Skeel, Jr., 2009. University of Pennsylvania Law School ILE Research Paper No. 09-11.

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"Derivatives and the Bankruptcy Code: Why the Special Treatment?" by Franklin Edwards and Edward R. Morrison, 2005. *Yale Journal on Regulation* (January 1).

"FDIC's Modified Payout Plan," by Fredrick T. Furlong, 1984. Federal Reserve Bank of San Francisco, *Economic Letter*, May 18.

"Credit Derivatives: An Overview," by David L. Mengle, 2007. Federal Reserve Bank of Atlanta, *Economic Review*, vol. 92, no. 4.

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*The New Financial Deal: Understanding the Dodd-Frank Act and Its (Unintended) Consequences*, by David Skeel, 2011. Hoboken, NJ: John Wiley and Sons.



*Bailout: An Insider's Account of Bank Failures and Rescues*, by Irvine H. Sprague, 1986. New York: Basic Books.

“Lessons Learned from the Lehman Bankruptcy,” by Kimberly Anne Summe, 2009. In *Ending Government Bailouts As We Know Them*; Kenneth E. Scott, George P. Schultz and John B. Taylor, eds., Chapter 5, Stanford California: Stanford University Press.

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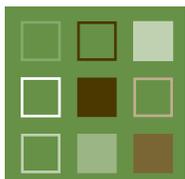


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